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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/003,649 | 11/02/2001 | Kevin B. Leigh | 1662-40500 JMH (P00-3496) | 8350 |

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CONLEY ROSE, P.C.
P. O. BOX 3267
HOUSTON, TX 77253-3267

| EXAMINER | |
|---|---|
| CHEA, PHILIP J | |
| **ART UNIT** | **PAPER NUMBER** |
| 2153 | |

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/003,649 | LEIGH ET AL. | |
| | Examiner | Art Unit | |
| | Philip J Chea | 2153 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *02 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

Claims 1-33 have been examined.

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 7 recites the limitation "said daisy chained bus" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8,10,12-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Bassman et al. (US 6,408,334).

As per claim 1, Bassman et al. disclose a remote management system for a plurality of servers, as claimed, comprising:

- a remote management module located near a group of server having a first port for exchanging server management command and data signals with a server (see Fig. 1 and column 3, lines 54-60, where remote management module is considered computer system #1 of Fig. 1) and a second port for exchanging signals with a remote server

management computer (see Fig. 1, and column 3, lines 38-46, where remote server management computer is considered Fig. 1 [17]), and

- a bus coupled to said first port of said remote management unit and to each of said servers (see Fig. 1, RS-485).

As per claim 2, Bassman et al. further disclose for each server, a local management controller coupling its associated server to said bus and converting server management status and video data signals from its associated server to packetized signals coupled to said bus (see column 4, lines 12-43, and 64-67, where local management controller is considered the management circuit, that is located at each server).

As per claim 3, Bassman et al. further disclose that local management controller converts packetized signals from said bus to server command and data signals for its associated server (see column 4, lines 12-43).

As per claim 4, Bassman et al. further disclose a plurality of bus segments coupled in daisy chain fashion (see column 3, lines 29-36).

As per claim 5, Bassman et al. further disclose a multiconductor cable carrying packetized signals (see column 3, lines 56-60).

As per claim 6, Bassman et al. further disclose (see column 3, lines 54-60), further comprising a multiplexor for each of server, each multiplexor having three ports, two of said ports coupling bus segments in series and the third port coupled to its associated server (see column 5, lines 35-39, and column 5, lines 24-28).

As per claim 7, Bassman et al. further disclose that each multiplexor is adapted to respond to a hot key signal on said bus identifying its associated server and couple said server to said bus (see column 5, lines 50-65).

As per claim 8, Bassman et al. further disclose

- a control bus master coupled to said remote management module receiving a signal identifying a server to which the remote management module is to be connected (see column 6, lines 12-21),

- a control bus slave for each of said servers and coupled to one of said multiplexors (see column 6, lines 21-25, where the slave is considered the management circuit), and
- a control bus coupling said control bus master to each of said control bus slaves (see column 6, lines 12-25),
- each said control bus slave responding to a signal on said control bus identifying the server associated with the multiplexor to which it is coupled by signaling said multiplexor to couple signals from the server to the bus (see column 6, lines 12-39).

As per claim 10, Bassman et al. further disclose said second port is coupled to a network (see column 3, lines 38-42).

As per claim 12, Bassman et al. disclose a method of remotely managing a plurality of server comprising:

- coupling a remote management computer to a remote management module through a network (see Fig. 1 see column 3, lines 38, 42, where remote management computer is considered the remote management system, and remote management module is considered the remote connector circuit).
- coupling said remote management module to a plurality of server with a bus (see Fig. 1, and column 3, lines 56-61).

As per claim 13, Bassman et al. further disclose converting server management status and video data signals from each server to packetized signals and coupling said packetized signals to said bus (see column 4, lines 12-43, and 64-67).

As per claim 14, Bassman et al. further disclose converting packetized signals from said bus to server command and data signals and coupling said server command and data signals to a server (see column 4, lines 12-43, and 64-67).

As per claim 15, Bassman et al. further disclose that the bus comprises a plurality of bus segments coupling successive bus segments together and coupling servers to the bus by a multiplexor for each server (see column 5, lines 41-47).

As per claim 16, Bassman et al. further disclose selecting a server to exchange server management command and data signals with said remote management module by sending a selection signal to a multiplexpor associated with the selected server (see column 6, lines 12-39).

As per claim 17, Bassman et al. further disclose sending a hot key command identifying the selected from the said remote management computer to all server coupled to the bus (see column 3, lines 38-49).

As per claim 18, Bassman et al. further disclose

- sending a server selection signal from said remote management module to a control bus master device (see column 3, lines 38-49, and column 6, lines 12-21),
- coupling the selection signal from the control bus master over a control bus to control bus slave devices associated with each server (see column 6, lines 12-25),
- coupling a multiplexor control signal from the control bus slave device associated with the selected server to the multiplexor associated with the selected server (column 5, lines 24-28).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9,11, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bassman et al. further in view of Lahr (US 2002/0046405).

As per claim 9, as applied to claim 1 above, although the system disclosed by Bassman et al. shows substantial features of the claimed invention (discussed above), it fails to disclose exchanging signals in IP protocol.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al., as evidenced by Lahr.

In an analogous art, Lahr discloses a remote management system exchanging signals with a remote management module in IP protocol (see page 3, paragraph 36).

Given the teaching of Lahr, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. by employing an IP protocol, such as disclosed by Lahr, in order to comply with a popular data transmission protocol which may be used in many types of networks.

As per claim 11, as applied to claim 10 above, although the system disclosed by Bassman et al. shows substantial features of the claimed invention (discussed above), it fails to disclose a network using the Internet.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al., as evidenced by Lahr.

In an analogous art, Lahr discloses a remote management system exchanging signals with a remote management module using the Internet (see page 8, paragraph [0028]).

Given the teaching of Lahr, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. by employing an Internet network such as disclosed by Lahr, in order to connect to remote locations across the Internet.

As per claim 19, although the system disclosed by Bassman et al. disclose

- a remote management module located near a group of servers, having a first port for exchanging server management command and data signals with a server (see Fig. 1 and column 3, lines 54-60, where remote management module is considered computer system #1 of Fig. 1) and a second port for exchanging signals with a remote server management computer over a network (see Fig. 1, and column 3, lines 38-46, where remote server management computer is considered Fig. 1 [17]), and

- a bus, coupled to the first port of the remote management unit and each coupled to each server (see Fig. 1, RS-485),

it fails to disclose a second remote management module near a group of servers, and a second bus for the second remote management module coupled to its servers.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al., as evidenced by Lahr.

In an analogous art, Lahr discloses that it would have been obvious to use two remote management modules located near a group of servers (see page 8, paragraph [0073], where the remote management modules are considered directors at the regional data centers).

In considering the second bus, it would have been obvious for the second remote management module to have its own bus coupled to its own set of servers.

Given the teaching of Lahr, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. by employing a second a remote management module, such as disclosed by Lahr, in order to manage two different server groups at two regionally different locations.

As per claim 20, Bassman further discloses a port coupled to the second port of a remote management module coupled to a network (see column 3, lines 38-42). In addition as discussed above, Lahr suggests a switch having a port coupled to each of said second ports of remote management modules (see Lahr page 8, paragraph [0073], where a director at the master data center queries directors at the regional data centers implying a switch coupled to each director).

As per claim 21, Bassman et al. in view of Lahr disclose that the network is the Internet (see Lahr page 8, paragraph [0028]).

5. Claims 22-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Bassman et al. further in view of Day et al. (US 5,941,951).

As per claim 22, although the system disclosed by Bassman et al. shows

- a remote management module located near a group of servers, each remote management module having a first port for exchanging server management command and data signals with a server (see Fig. 1 and column 3, lines 54-60, where remote management module is considered computer system #1 of Fig. 1) and a second port for exchanging signals with a remote server management computer over a network (see Fig. 1, and column 3, lines 38-46, where remote server management computer is considered Fig. 1 [17]),
- a bus coupled to the first port of said first remote management unit and coupled to each server in said group of servers (see Fig. 1, RS-485),

it fails to disclose a second remote management module and a second bus coupled to each server in said group of servers.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al., as evidenced by Day et al.

In an analogous art, Day et al. disclose that it would have been obvious to incorporate a second remote management module (see column 6, lines 4-7, where second remote management module is considered the secondary automation system console).

In considering the second bus, it would have been obvious to connect the bus of the second remote management module to the set of servers.

Given the teaching of Day et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. by employing a second remote management module, such as disclosed by Day et al., in order to provide a back up remote management module in case the first one fails.

As per claim 23, Bassman et al. further disclose a port coupled to a second port of remote management module and coupled to a network (see column 3, lines 38-42). In addition, as discussed above, Day et al. suggests a second port remote management module having a port coupled to the second port and coupled to a network. Furthermore, Day et al. suggests a switch coupling both first and second remote management modules (see Fig. 4 [72]).

As per claim 24, Bassman et al. in view of Day et al. further disclose that the network is the Internet (see Day et al. column 5, lines 48-65).

As per claim 25, Bassman et al. further disclose that for each server, a local management controller coupling its associated server to a bus and converting server management status and video data signals from its associated server to packetized signals coupled to said bus (see column 4, lines 12-43, and 64-67, where local management controller is considered the management circuit, that is located at each server). In addition, as discussed above, Day suggests a second bus to operate in the same manner.

As per claim 26, Bassman et al. further disclose

- a bus comprising a plurality of segments coupling said first port of a remote management module to each of said servers (see column 5, lines 41-47); and
- a multiplexor for each server, having three ports, two of said ports coupling bus segments in series and the third port coupled to its associated server (see column 5, lines 35-39, and column 5, lines 24-28).

In addition as discussed above, Day et al. suggests a second bus and multiplexor to operate in the same manner.

As per claim 27, Bassman et al. further disclose

- a control bus master coupled to said remote management module receiving a signal identifying a server to which the remote management module is to be connected (see column 6, lines 12-21),
- a control bus slave for each of said servers and coupled to one of said multiplexors (see column 6, lines 21-25, where the slave is considered the management circuit), and
- a control bus coupling said control bus master to each of said control bus slaves (see column 6, lines 12-25),
- each said control bus slave responding to a signal on said control bus identifying the server associated with the multiplexor to which it is coupled by signaling said multiplexor to couple signals from the server to the bus (see column 6, lines 12-39).

In addition as discussed above, Day et al. suggests a second bus master and slave to operate in the same manner as disclosed by Bassman et al.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bassman et al. in view of Day et al. as applied to claim 27 above, and further in view of LaBerge (US 5,815,674).

Although the system disclosed by Bassman et al. in view of Day et al. shows substantial features of the claimed invention (discussed above), it fails to disclose an arbitration bus.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al. in view of Day et al., as evidenced by LaBerge.

In an analogous art, LaBerge discloses an arbitration bus (see Fig. 2 [54]).

Given the teaching of LaBerge, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. in view of Day et al. by employing an arbitration bus, such as disclosed by LaBerge, in order to receive two signals from separate busses.

7. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bassman et al. further in view of Bakke et al. (US 6,704,812).

As per claim 29, Bassman et al. disclose

- a remote management module located near a group of servers have a first port for exchanging server management command and data signals with a server (see Fig. 1 and column 3, lines 54-60, where remote management module is considered computer system #1 of Fig. 1), and a network port for exchanging signals with a remote server management computer (see Fig. 1, and column 3, lines 38-46, where remote server management computer is considered Fig. 1 [17]), and
- first data bus coupled to first data port of said remote management unit and to each of said servers (see Fig. 1, RS-485),

it fails to disclose a second data port for exchanging data signals with a server, and a second data bus coupled to second data port of said remote management unit and to each of said servers.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Bassman et al., as evidenced by Bakke et al.

In an analogous art, Bakke et al. disclose that it would have been obvious to incorporate a second data port and a second data bus for exchanging information between the remote management unit and the servers (see column 9, lines 20-48).

Given the teaching of Bakke et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Bassman et al. by employing a second data port and a second data bus, such as disclosed by Bakke et al., in order to have a redundant path in case one bus fails (see Bakke et al. column 2, lines 36-42).

As per claim 30, Bassman et al. further disclose for each server, a local management controller having a first data port coupling its associated server to said first data bus and converting server management status and video data signals from its associated server to packetized signals coupled to said first bus (see Bassman et al. column 4, lines 12-43, and 64-67, where local management controller is considered the management circuit, that is located at each server, and rejection to claim 29). In addition as discussed above, Bakke suggests the second data port and second data bus. Furthermore, given Bakke's suggestion of redundancy as discussed above, it would have been obvious to include the second data port and data bus in case the first one fails.

As per claim 31, Bassman et al. further disclose a multiplexor for each server, each multiplexor coupling a local management controller first data port to a data bus (see column 5, lines 41-47). In addition as discussed above, Bakke suggests a second data port and a second data bus. Furthermore, given Bakke's suggestion of redundancy as discussed above, it would have been obvious to include a second multiplexor and data port to couple the local management controller to the second data bus.

As per claim 32, Bassman et al. further disclose

- a control bus master coupled to a remote management module and having a control bus port (see column 6, lines 12-21),

- a control bus slave associated with each of the servers, and each coupled to a multiplexor associated with the same server (see column 6, lines 21-25, where the slave is considered the management circuit),
- a control bus coupled to said control bus master control bus port and coupled to each of said control bus slaves (see column 6, lines 12-25).

In addition as discussed above, Bakke suggests a second data port and a second data bus. Furthermore given Bakke's suggestion of redundancy as discussed above, it would have been obvious to include a control bus slave coupled to a second multiplexor associated with the same server.

As per claim 33, Bassman et al. in view of Bakke further disclose a second network port for exchanging signals with a remote server management computer (see Bassman column 4, lines 53-59).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

| | |
|---|---|
| Oprescu; Florin et al. | US 5579486 A |
| Perholtz; Ronald J. et al. | US 5732212 A |
| Tavallaei; Siamak et al. | US 6070253 A |
| Tseng; Weinan William et al. | US 6119159 A |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 7:00-4:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Philip J Chea
Examiner
Art Unit 2153

PJC 1/11/05

Dung C. [illegible]
Primary Exa[illegible]